

CLAIMS

1. Method for transmitting entitlement management messages (EMM) controlling access to data and/or services to be provided to a plurality of terminals in a data exchange network, characterised in that it
5 comprises the following steps:

At the transmission side:

- defining a set of EMM type messages as a function of at least one criterion representative of the type of data and/or
10 services provided;
- defining a plurality of types of logical transmission channels and associate at least one parameter (STREAM_TYPE) to each type of channel to inform terminals of the EMM types transiting
15 on each described logical channel;
- assigning at least one channel among the defined logical transmission channels, to each EMM message type;
- transmitting the (STREAM_TYPE) parameter and the
20 said logical channels to each terminal;
- multiplexing the logical transmission channels in the same data stream;
- transmitting the said data stream to terminals;

and at the reception side:

- 25 - each terminal filters incoming EMMs as a function of the (STREAM_TYPE) parameter and at least one state parameter depending on the routine operation of the terminal.

2. Method according to claim 1, characterised in that the said (STREAM_TYPE) parameter is transmitted to each terminal in a dynamic data structure representing a logical control channel.

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3. Method according to claim 2, characterised in that the said dynamic data structure is transmitted in an encrypted EMM.

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4. Method according to claim 3, characterised in that the said dynamic structure comprises at least one of the following fields:

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- a first field (EMM_XID) for enabling the terminal to identify the logical channel described by the structure;

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- a second field (Version_Number) for informing the terminal about a change to data and/or a change to the dynamic structure corresponding to transmission of the said new data on the described channel such that the terminal adapts its filtering to retrieve the said new data;

- a third field (Listen_time) for informing the terminal about a listen time on the described channel.

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5. Method according to claim 4, characterised in that the said third field (Listen_time) represents a minimum fixed duration sufficiently long to enable the terminal to retrieve the transmitted messages.

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6. Method according to claim 4, characterised in that the said third field (Listen_time) represents a minimum variable duration, as a function of the repetition rate at which EMM messages are sent.

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7. Method according to either of claim 5 or 6, characterised in that the types of defined logical channels comprise at least:

- 10 - a FAST channel for transmitting EMM messages to terminals that expressly requested these messages;
- a DEDICATED channel for transmitting EMM messages with identical functional objectives;
- 15 - a NORMAL channel for transmitting EMM messages for which the contents are not predictable and may not be delayed in time;
- a DELAYED channel for transmitting non-urgent EMM messages with various functional objectives, to terminals;
- 20 - a LOAD SHEDDING channel for retransmitting messages that have already been transmitted on a channel other than the DEDICATED channel, to terminals.

25 8. Method according to claims 6 and 7, characterised in that the minimum variable duration for the FAST, NORMAL, DELAYED and DEDICATED channels is estimated as a function of the repetition rate at which EMM messages are sent.

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9. Method according to any one of claims 1 to 8, characterised in that the data and/or services provided to terminals represent multimedia programs.

5 10. Method according to claim 9, characterised in that the data and/or services provided to terminals represent audiovisual programs.

10 11. Method according to any one of claims 1 to 10, characterised in that the EMM messages are transmitted in broadcast mode.

15 12. Method according to any one of claims 1 to 10, characterised in that the EMM messages are transmitted in connected mode.

20 13. Method according to either of claims 11 or 12, characterised in that EMM messages are encapsulated in MPEG format.

20 14. Method according to claim 13, characterised in that the MPEG payload units obtained contain at least the following private information:

- EMM_XID representing the identifier of the EMM;
- 25 - LG_EMM representing the length of the EMM
- and its contents.

30 15. Device for transmitting entitlement management messages controlling access to data and/or services to be provided to a plurality of terminals in a data exchange network, characterised in that it comprises:

- means for defining a set of EMM type messages as a function of at least one criterion representative of the type of data and/or services provided;
 - 5 - means for defining several types of logical transmission channels as a function of the contents to be transmitted on each channel;
 - means for assigning a logical transmission channel to each EMM message type;
 - 10 - means for multiplexing the logical transmission channels in the same data stream;
 - means for transmitting the said data stream to terminals; and
 - means for filtering incoming EMMs into a terminal, as a function of defined channel types.
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16. Device according to claim 14, characterised in that it comprises:
- 20 - means for associating at least one parameter (STREAM_TYPE) to each channel type, designed to inform terminals about EMM types transiting on each of the described logical channels;
 - means for transmitting the (STREAM_TYPE)
 - 25 parameter to each terminal;
 - means for enabling each terminal to filter incoming EMMs as a function of the (STREAM_TYPE) parameter, and at least one status parameter reflecting routine operation of the terminal.